

Iowa Rivers Information System (IRIS)

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The Iowa Rivers Information System (IRIS) focuses on the need for a comprehensive system relating physical, chemical, and biological information on a broad spatial scale to in-stream habitat and fishery resources in interior Iowa rivers. The objective of this project is to integrate physical, chemical and biological information into a comprehensive, user-friendly, statewide information system for interior Iowa rivers.

Work continues on the web interface for IRIS (<http://maps.gis.iastate.edu/iris>) using ESRI's ArcIMS and ArcSDE technology. Currently users are able to view, query and interact with IRIS data through a limited set of traditional GIS tools. Additional data layers have been added as they become available and links to metadata or information about the different data layers now exist. Stream channel data now available includes Strahler stream order, Shreve downstream link number, minimum and maximum elevation values, stream gradient (m/Km) and reach size discrepancy with downstream reach. Access to the fish survey database developed for the Aquatic GAP project has been added. Users can access more than 11,000 fish survey samples and sample location maps. Predicted range maps of all modeled fish species were also included on the site this past year, allowing users to dynamically select a species and generate a distribution map based on 8-digit HUCS. Tools have been developed to facilitate pulling database records from the fish database. Improvements to the interface were made to provide quick access to reach-based records through the Iowa DNR Watershed Atlas by clicking on a reach and retrieving IRIS variables and by modifying the IRIS map interface. Users can now use three tools to summarized fish records by reach, county or 8-digit HUC. Output is in the form of a formatted table and users can download the data in a comma delimited format (CSV) for use in Excel or other spreadsheet.

An IRIS-Aquatic GAP database workshop was held for Iowa DNR in February 2005. This workshop provided an overview the IRIS website as well as introducing participants to the fish database developed for Aquatic GAP. Feedback from this workshop is being integrated within the IRIS site. Further features are being developed to enhance the user interface/experience of the IRIS site and integrate other datasets that may provide river and stream information. These include combining gaging information with climate data (realtime NEXRAD and rainfall data), fish kill data, and enhancing access to the fish sampling data.

IRIS can be viewed at the following web site: (<http://maps.gis.iastate.edu/iris>)

Questions about using the IRIS web site should be directed to Patrick Brown, patrickb@iastate.edu, (515) 294-7312